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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,708	12/11/2001	Christopher Francis Michael Twigge-Molecey	R1095/20004	4439

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EXAMINER

STERRETT, JONATHAN G

ART UNIT PAPER NUMBER

3623

DATE MAILED: 02/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/016,708	<b>Applicant(s)</b> TWIGGE-MOLECEY, CHRISTOPHER FRANCIS MIC	
	<b>Examiner</b> Jonathan G. Sterrett	<b>Art Unit</b> 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. Currently **Claims 1-10** are pending.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-3, 5 and 6** are rejected under 35 U.S.C. 102(b) as being anticipated by **Shane**.

**Shane**, A Megan; Graedel, Thomas E.; "Urban Environmental Sustainability Metrics: A Provisional Set", Sept 2000, School of Forestry and Environmental Studies, Yale University, New Haven, CT, 06511, Journal of Environmental Planning and Management, 43, 4; ABI/INFORM Global, pp.643-663. (hereinafter **Shane**).

Regarding **Claim 1**, Shane discloses:

**(a) identifying a plurality of quantifiable indicators which together are representative of the impact of said activity;**

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Page 644 paragraphs 2 and 3, a plurality of definable indicators are identified which together represent the sustainability of a city's growth. See also Tables 1 and 2 for a plurality of definable indicators.

**(b) analysing data to assign a value to each of the indicators;**

Figure 1, air data is analyzed to assign a value for the various indicators of the Air Quality Index. These indicators are CO, NO<sub>2</sub>, O<sub>3</sub>, SO<sub>2</sub>, VOC and particles. The other indicators also require analysis of data to assign a value.

**(c) converting the value of each said indicator to an indicator score;**

**and**

Figure 1, the above air quality indicators are converted into an indicator score.

Page 659 Table 3, each of these indicators are converted into a score based on how they compare with a goal measuring environmental efficiency.

**(d) compiling the indicator scores to generate a composite score representative of the impact of the activity.**

Page 655 para 6 line 1-7, The various indicator scores are combined (i.e. compiled) to generate a composite score that is representative of the environmental sustainability for a particular urban area (i.e. urban activity). Figure 2 on page 656 also illustrates a graphical compiling of the indicator scores to illustrate a 10-member sustainability metric.

Regarding **Claim 2**, Shane discloses:

**periodic repetition of steps (a), (b), (c) and (d) to determine how the impact of the activity changes over time.**

Figure 3 illustrates how the indicator scores of the urban activity of Vancouver Canada changes over time as measured periodically from 2000 to 2005, 2010 and 2015. These figures would require the periodic repetition of the steps above to generate the illustrations of Figure 3.

Regarding **Claim 3**, Shane discloses:

**wherein the value of at least one of said indicators is converted to an indicator score by comparing the indicator quantity obtained in step (b) to a standard value for said indicator.**

Table 3, the indicator scores for Vancouver Canada compare their actual scores to a goal. Depending on the comparison, a score is recorded depending on how favorable (or unfavorable) the comparison was for the standard indicator.

Regarding **Claim 5**, Shane discloses:

**wherein the activity is an industrial or infrastructure development activity and each of said indicators falls into a general category selected from the group comprising materials, energy, emissions, effluents, by-products, toxics, water use, land use and restoration, health and safety, community involvement and community impacts and other indicators of local relevance.**

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Page 648 Table 1, Air (i.e. emissions), energy and water use per capita.

The data represent activity that is an infrastructure development activity (note example for infrastructural development for the city of Vancouver).

Regarding **Claim 6**, Shane discloses:

**wherein the industrial or infrastructure development activity comprises a capital project designed to change or expand the operation of an existing facility**

Page 654 paragraphs 4, 5 and 7, activities impacting the operation of the existing facility (i.e. an urban area) include plans (i.e. capital projects) for improving transportation (i.e. the transportation section of the plan), energy and the building plan for addressing population density. These would all comprise a capital project to develop the infrastructure.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 4, 7-9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shane**.

Regarding **Claim 4**, Shane teaches changes occurring in the sustainability metrics (indicator scores) and the need to improve sustainability over time but does not teach:

**wherein, after at least one repetition of steps (a), (b), (c) and (d), the indicator score for at least one of said indicators is obtained by comparing the value obtained in step (b) or the indicator score obtained in step (c) with previously obtained values of the indicator quantity and the indicator score, respectively.**

However, Official Notice is taken that it is old and well known in the art of metrics to determine a score based on whether there has been improvement in that score (including based on other factors that would impact the score). This incorporates into the metric the concept of whether there has been improvement or not.

It would have been obvious to one of ordinary skill in the art at the time of the invention to obtain an indicator score for an indicator by measuring change in the indicator's score because it would provide a way to easily incorporate an indication of improvement into the final metric.

Shane teaches that organizations need to continue to improve their sustainability scores by improving the various indicator scores that make up their

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overall sustainability score. Shane shows a hypothetical improvement in the sustainability scores for Vancouver BC going to 2015.

Ensuring that metrics improve is a goal of management. Rewarding organizations for improving metrics is understood by management as a key way to ensure continued improvement. Measuring change in performance is an obvious modification over Shane based on what is old and well known in the art of metrics and meets the claim limitations with a reasonable expectation of success.

**Claim 7** recites limitations similar to those addressed by the rejection of **Claim 4**, and is therefore rejected under the same rationale.

Regarding **Claim 8**, Shane teaches:

**wherein the scores for a plurality of said indicators are aggregated to obtain an aggregate score for said facility.**

Page 655 paragraph 6, The indicators for a plurality of scores are aggregated. The maximum score with the proposed technique taught by Shane is 20 for a city (i.e. a facility).



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Regarding **Claim 9**, Shane does not teach:

**wherein scores for a number of facilities within a division or an organization are aggregated to obtain an aggregate score for the division or the organization.**

However, aggregating scores to come up with an aggregate score to measure a group is a technique that is old and well known in the art. This provides an easy-to-use technique to combine a number of scores into an aggregate total.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Shane, regarding providing an aggregate score for a facility (i.e. a city) to further include aggregating the scores for a group of facilities, because it would provide an easy-to-use way to score the group of facilities.

Regarding **Claim 10**, Shane teaches:

**wherein the aggregate scores are monitored over time to monitor compliance with policies and progress towards sustainability.**

Figure 3 shows how the aggregate scores are monitored over time to monitor compliance with policies and progress towards sustainability.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lenox, Michael; King, Andrew; Ehrenfeld, John; "An Assessment of Design-for-Environment Practices in Leading US Electronics Firms", May/June 2000, Interfaces; 30, 3; ABI/INFORM Global, pp.83-94.

Fayers, Christopher, "Environment and Investment: The Role of Personal Investment Choice in Creating Sustainability", May 1999, Sustainable Development, 7, 2; ABI/INFORM Global, p.64-76.

Hopey Don; "Group Rates Cars Based on Environmental Impact", Feb 19, 1999, KRTBN Knight-Ridder Tribune Business News (Pittsburgh Post-Gazette), Dialog 04371827.

Bartram, Peter; "Planning Strategy – Dealing with the Future", Sept 11, 2000, Financial Director, p38, Dialog 14029609.

Cox, Jackie, "Cluster Rules Update", Sept 1994, American Papermaker, v57, n9, p24(4), Dialog 07546380 16319972.

Owen, Crystal L; Scherer, Robert F; "Social Responsibility and market share", Summer/Fall 1993, Review of Business, v15n1, pp.11-16, Dialog 00794629 94-44021.

Mitnick, Barry M; "Commitment, revelation and the testaments of belief: The metrics of measurement of corporate social performance", Dec 2000, Business & Society, v39n4, pp.419-465, Dialog 02098561 65286789.

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Perman, Roger; Anand, P B; "Development and the environment: an introduction", 2000, Journal of Economic Studies, v27n1/2, pp.7, Dialog 02397462 115718687.

US 5652717 by Miller discloses a method for acquiring and displaying environmental data.

US 5808916 by Orr discloses a method for monitoring the environment.

US 5818737 by Orr discloses a method for guiding the development of a municipality.

US 2002/0099591 by Dyer discloses a computer assisted sustainability testing method.

US 2002/0107721 by Darwent discloses a story-based organizational assessment and effect system

US 6490565 by Beldock discloses a environmental certification system and method.

US 6509730 by Afsah discloses a method of environmental performance measurement.

US 2003/0018487 by Young discloses a system for assessing and improving the social responsibility of a business.

US 2003/0023467 by Moldovan discloses a method for developing and promoting operations that are supported by environmental protection funding.

US 6912502 by Buddle discloses a system and method for compliance management.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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